UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Bey 1459.

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

25944 7590 03/30/2009

OLIFF & BERRIDGE, PLC P.O. BOX 320850

ALEXANDRIA, VA 22320-4850

EXAMINER
TUGBANG, ANTHONY D

ART UNIT PAPER NUMBER

3729 DATE MAILED: 03/30/2009

 APPLICATION NO.
 FILING DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKET NO.
 CONFRMATION NO.

 10/667,350
 09/23/2003
 Yuji Shinkai
 117259
 3395

TITLE OF INVENTION: MANUFACTURING AN INK JET HEAD

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1510 | \$300 | \$0 | \$1810 | 06/30/2009 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and I/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

| appropriate. All further indicated unless corrects maintenance fee notifica | correspondence includired below or directed oth | of transmitting the 1330 ig the Patent, advance of herwise in Block 1, by (a | rders and notification of a) specifying a new corre | maintenance fees w spondence address; | ill be and/or | mailed to the current (b) indicating a sepa | correspondence address as rate "FEE ADDRESS" for |
|--|--|--|---|--|---|---|---|
| | ENCE ADDRESS (Note: Use Bi | ock 1 for any change of address) | Noi Fee pap bay | te: A certificate of r (s) Transmittal. This ers. Each additional e its own certificate | mailing s certif paper, of mai | can only be used for icate cannot be used for such as an assignme ling or transmission. | r domestic mailings of the or any other accompanying nt or formal drawing, must |
| OLIFF & BER P.O. BOX 3208: ALEXANDRIA | | /2009 | T be | Cert | ificate | of Mailing or Trans | |
| | | | | | | | (Depositor's name) |
| | | | | | | | (Signature) |
| | | | | | | | (Date) |
| APPLICATION NO. | FILING DATE | | FIRST NAMED INVENTOR | 1 | ATTO | RNEY DOCKET NO. | CONFIRMATION NO. |
| 10/667,350 TITLE OF INVENTION | 09/23/2003 : MANUFACTURING | AN INK JET HEAD | Yuji Shinkai | | | 117259 | 3395 |
| APPLN, TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE | FEE | TOTAL FEE(S) DUE | DATE DUE |
| nonprovisional | NO | \$1510 | \$300 | \$0 | | \$1810 | 06/30/2009 |
| EXAM | INER | ART UNIT | CLASS-SUBCLASS | 1 | | | |
| TUGBANG, A | ANTHONY D | 3729 | 029-025350 | _ | | | |
| "Fee Address" ind PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME A | ND RESIDENCE DATA less an assignee is ident h in 37 CFR 3.11. Comp | "Indication form ed. Use of a Customer A TO BE PRINTED ON | (f) the names of up to or agents OR, alternati (2) the name of a sing registered attorney or 2 registered patient attorney illed patient attorney or HIE PATENT (print or ty data will appear on the p T a substitute for filing an (B) RESIDENCE: (CIT' | wely, le firm (having as a agent) and the name meys or agents. If r printed. pe) patent. If an assigne assignment. | memb s of up no nam | er a 2 | ocument has been filed for |
| Please check the appropr | iate assignee category or | categories (will not be pr | inted on the patent): | Individual Co | rporati | on or other private gro | oup entity 🚨 Government |
| Advance Order - | To small entity discount p | permitted) | o. Payment of Fee(s): (Ple A check is enclosed. Payment by credit ca The Director is hereb overpayment, to Depi | rd. Form PTO-2038 | is atta | ched. | shown above) ficiency, or credit any n extra copy of this form). |
| - 11 | s SMALL ENTITY state | is. See 37 CFR 1.27. | ☐ b. Applicant is no lor | | | | |
| NOTE: The Issue Fee an interest as shown by the | d Publication Fee (if req records of the United Sta | uired) will not be accepted tes Patent and Trademark | d from anyone other than Office. | the applicant; a regis | stered a | uttorney or agent; or th | e assignee or other party in |
| Authorized Signature | | | | Date | | | |
| Typed or printed name | | | Registration No. | | | | |
| This collection of inform an application. Confiden submitting the complete this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223 | ation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but firginia 22313-1450. DC 13-1450. | FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR 6 | on is required to obtain or 1.14. This collection is es depending upon the indi e Chief Information Offic COMPLETED FORMS T | retain a benefit by the timated to take 12 n vidual case. Any co- er, U.S. Patent and ' O THIS ADDRESS. | ne publ ninutes mment Fraden . SENI | ic which is to file (and to complete, includin s on the amount of tir ark Office, U.S. Dep D TO: Commissioner | by the USPTO to process) g gathering, preparing, and ne you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450, |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandra, Virgima 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------|----------------|----------------------|---------------------|------------------|
| 10/667,350 | 09/23/2003 | Yuji Shinkai | 117259 | 3395 |
| 25944 75 | 590 03/30/2009 | | EXAMINER | |
| OLIFF & BERRIDGE, PLC | | TUGBANG, ANTHONY D | | |
| P.O. BOX 320850 | | | ART UNIT | PAPER NUMBER |
| ALEXANDRIA, VA 22320-4850 | | | 3729 | |

DATE MAILED: 03/30/2009

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 122 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 122 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

| Application No. | Applicant(s) | |
|------------------|---------------|---|
| 10/667,350 | SHINKAI, YUJI | |
| Examiner | Art Unit | П |
| A Dowtor Tughong | 2720 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence addressAll claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1. This communication is responsive to Request for Reconsideration filed on December 11, 2008,
- 2. X The allowed claim(s) is/are 25 through 36 and 40 through 44 (renumbered as 1 through 17, respectively).
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a)

 All b)

 Some* c)

 None of the:
 - 1. A Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) 🔲 including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) I hereto or 2) to Paper No./Mail Date ____
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

 DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2.
 Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- Paper No./Mail Date _
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date .
- 7. Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. 🔲 Other _____.

Art Unit: 3729

DETAILED ACTION

Election/Restrictions

Claims 25 and 31 are *generic* claims that are directed to an allowable process of making. Pursuant to the procedures set forth in MPEP § 821.04(B), Claims 27, 33 and 34, directed to the process of making, previously withdrawn from consideration as a result of a restriction requirement, are hereby rejoined and fully examined for patentability under 37 CFR 1.104.

Because all claims previously withdrawn from consideration under 37 CFR 1.142 have been rejoined, the restriction requirement as set forth in the Office action mailed on December 15, 2005 is hereby withdrawn. In view of the withdrawal of the restriction requirement as to the rejoined inventions, applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance.

The prior art does not teach all of the limitations of the claimed invention including "a surface electrode disposed on the piezoelectric element and having a main electrode portion opposed to a pressure chamber of the plurality of pressure chambers and a connection portion Application/Control Number: 10/667,350

Art Unit: 3729

opposed to a wall portion of the plurality of wall portions defining each of the plurality of pressure chambers of the ink passage unit, and a *land* disposed on the piezoelectric element in a region opposed to the wall portion, *the land being electrically connected to the surface electrode*, wherein the terminal is connected to the land" (lines 7-12 of Claim 25 with similar limitations at lines 7-12 in Claim 31).

The above feature was relied upon to be met by JP'670 in the last Office Action (Non-Final Rejection, mailed on July 24, 2008). However, upon further consideration by the examiner, and as discussed during the Interview of December 3, 2008, JP'670 cannot meet these limitations. In JP'670, element 3b was read as the "surface electrode" and the "land" was read as a top portion of 3b. However, if JP'670 is read in this manner, then the surface electrode 3b cannot meet the limitations of having both a "main electrode portion" and a "connection portion", and a "land". Therefore, JP'670 cannot meet the limitations above.

Furthermore, the applicant(s) arguments, as filed in the response of December 11, 2008, are fully incorporated by reference herein.

Accordingly, Claims 25 through 36 and 40 through 44 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 3729

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 571-272-4570. The examiner can normally be reached on Monday - Friday 8:15 am - 4:45 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. Dexter Tugbang/ Primary Examiner Art Unit 3729

March 16, 2009